Increasing Student Success with Team Projects in the Virtual Classroom

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Abstract

Virtual teams have become a major component in the delivery of online courses at Purdue University Global (PUG) and in higher education in general (Olson, et. al, 2015). To help provide employers with qualified candidates for their talent needs, teamwork has been established as one of the six professional competencies that Purdue University Global (PUG) students are assessed for in all programs. Virtual teams in the classroom have become a major source of student and faculty complaints. This resulted in virtual team projects being removed from some classes. Cross functional working teams were established to review the team project processes.   The objective of these teams was to develop recommendations for improving team projects in the curriculum. Initial results showed the main factors impacting student satisfaction with team assignments in the virtual classroom included; poor communication within the team, time schedule issues; and, lack of training for both students and faculty.

Introduction

Virtual teams have become a major component in the delivery of online courses at Purdue University Global (PUG) and in higher education in general (Olson, et. al, 2015). This is largely due to the fact that teamwork has been identified as a necessary professional competency that companies look for in the hiring process. The

National Association of Colleges and Employers (NACE) Job Outlook 2018 (2017) survey results show the most important core skills that employers want to see include: problem-solving skills, ability to work in a team, and written communication skills. To help provide employers with qualified candidates for their talent needs, teamwork has been established as one of the six professional competencies that Purdue University Global students are assessed for in all programs.

Feedback from students and faculty on dissatisfaction with the team projects process resulted in the reduction of team projects in the classroom. Cross function teams were authorized to analyze the problems and recommend solutions. This paper will focus on the methodology, results and initial recommendations.

Literature Review

The literature reviewed included concept papers as well as reports of qualitative and quantitative research. In general, it was found that the problems experienced in virtual classroom teams are not unlike those experienced in virtual teams in most settings. The literature review explored these issues and the result included; amount of text typed and use of first names as creating a group identity, (Ferebee & Davis, 2012), the introduction of webcams for video within team meetings help improve trust and collaboration (Olson, et al., 2013), focusing on problem topic and not team members; Insuring that verbal and non-verbal communications complement each other, validating contributions and making sure that all have the opportunity to speak in team meetings, (Kennedy & Nilson, 2008), Berry (2011), suggested that consensus on times to meet, shared understanding of team expectations, identified leadership, established social presence and effective communication are all necessary to meet the criteria for effective teams.

Methodology

In search of further insights into the specific problems perceived by faculty and students a series of focus group discussions were performed.

Faculty Focus Groups
Three faculty focus group discussions were conducted by team members. Faculty from all areas and levels, Associates, Bachelors and Graduate, were invited to attend. Questions discussed were in two categories: Personal experience from practice; and personal experience in the classroom.

The questions posed during the faculty focus groups were as follows:

- Personal Feedback

    1. What are the teams you have worked on (i.e., School, Work, Other)?
    2. What are some elements of the successful teams you have worked on?
    3. What are elements of the non-successful teams you have worked on?
    4. If you have worked on virtual teams, what has been different than working on face-to-face teams?
    5. Did you receive any formal training?

- Feedback from a Faculty Perspective

    1. What are elements that led to successful student teams in your classroom?
    2. Given that teamwork is a professional core competency, how were you held accountable for integrating that into your classes?
    3. What support were you given?
    4. What specific problems have you experienced in using teams in the classroom?
    5. What recommendations do you make for student team communication? Are you familiar with Adobe or other technical communications platforms? How do you use them in your class? Have you had any formal training?
    6. Other feedback on teams?

Student Focus Groups

Student focus groups were conducted by faculty during a live seminar in 22 classes. Questions asked during the student focus group discussions were based on student experiences working on teams. The questions posed during the student focus groups were as follows

1. What are the teams you have work in?
    1. School
    2. Work
    3. Other
2. What are some elements of the successful teams you have worked on?
3. What are elements of the non-successful teams you have worked on?
4. If you have worked on virtual teams, what has been different than working on f2f teams
5. Did you receive any formal training?
6. Other feedback on teams?
    a. What are elements that led to successful student teams in your classroom?
    b. Given that teamwork is a professional core competency how were you held accountable for integrating that into your classes?
    c. What support were you given?
    d. What specific problems have you experienced?
7. What recommendations do you make for students to communicate in teams? How familiar are you with Adobe or other technical communications platforms? How do you use them in your class? Have you had any formal training in this area?

Results

Overview of Responses

Students and faculty identified many of the same factors related to successful, non-successful teams, and additional feedback, however, student responses are related more to their personal experience within the team, while faculty responses are observational, from the outside looking in. Faculty provided insight into more process related factors, while students provided greater insight into the interpersonal aspects of the team.

Successful Teams

For both student and faculty, communication was the key factor in successful teams, followed by the need to have leadership in the team. Both also felt that team member accountability was a strong contributing factor, along with having clear end goals and set expectations.

Students placed a strong value on collaboration and teamwork among team members, but this did not emerge as a factor stated by faculty. Respect was voiced as a contributing factor by students and was stated more specifically by faculty as there being a need for team members to respect different work habits and different schedules.

Faculty made the point that some students do their work early in the week and do not respect that other students do their work toward the end of the week. This does not necessarily mean they are going to be late. It was discussed by faculty that Team Charters, created when the team forms, could identify these work habits and each team member's schedule could be placed in the charter for clarity.

Both students and faculty stressed the importance of balanced participation from all team members as a contributor to success. Faculty addressed the need for a positive attitude about working on teams, and the need to have protocols in place to guide the team process. These factors were not identified by students.

Factors Contributing To An Unsuccessful Team

Interestingly, lack of communication was at the top of the list for students, but not mentioned as a factor for unsuccessful teams by faculty. This may be because faculty do not personally experience the lack of communication within a student team.

Both faculty and students identified a lack of leadership in the team as a contribution to poor success. Time differences and different schedules which complicate time management and meeting coordination were factors discussed by both faculty and students. Students report team members being late on their portion of a project as an important factor leading to an unsuccessful team experience. This was not stated by faculty, again, likely because the faculty do not experience this directly.

Both faculty and students list a lack of training in the team process as contributing to an unsuccessful team experience. Faculty state that most students have no formal team training and little team experience. Faculty were found to have very little formal team training, except for those where were in the military. Faculty discussed the students' often intense dislike of team projects as a large contributor to poor success.

Recommendations

The recommendations focused on what the team entitled the Professional Collaborative Experience concept. It introduces teamwork skills at the beginning of the respective program and builds on those skills as the student progresses through a program. For those students on an accelerated program (Excel Track), it was recommended that a teamwork skill assessment (as relevant to the student's specific program) be incorporated as part of the pre-acceptance evaluation of the student. This would allow an Excel Track student to "jump-in" at any point of the program and be the same skill proficient level with other students in the course. Additional recommendations include self-paced training for faculty on all aspects of virtual team management.

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